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ABSTRACT

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Abstract

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Gender and Race Differences in Causal Attributions in Achievement Situations

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Considerable attention has recently been focused on the large discrepancies between men and women in adult achievement behavior. Recent work concerned with perceptions of the causes of success and failure has demonstrated the utility of an attributional model for understanding individual differences in achievement-oriented behavior.

According to this model, there are several possible reasons that people give for why a particular success or failure might occur. Weiner and his associates (1971) have examined causal attributions for success and failure in terms of four factors: ability, effort, task difficulty, and luck. Each factor is jointly classified as either internal or external and stable or unstable (Figure 1).

Although the data are somewhat ambiguous, several studies have reported differences in the causal attributions that females make as compared with males in explaining their successes and failures. Females tend to be external in that

they rely more on luck as a causal explanation for both success and failure (Feather, 1969; Simon & Feather, 1973), and are less likely to attribute successful events to their own abilities (Nicholls, 1975; Deaux, 1974). When women use internal attributes in success situations they tend to use the unstable attribute of effort rather than ability, while men show the reverse pattern (McMahan, 1971; Deaux, 1974). Several investigators, however, have not found sex differences in causal attributions following success and failure (Feather & Simon, 1971; Luginbuhl & Crowe, 1975; McMahan, 1973).

Gender differences in explanations for behavior are important because they may influence future behavior. Ascriptions to the stable factors of ability and task difficulty have been found to maximize changes in future performance expectations, while internal attributions of ability and effort tend to affect the individual's satisfaction level (Weiner, 1974). Consequently, women may achieve less because of the causes they attribute to their performance in achievement-oriented situations.

Attribution research has dealt only with middle-class whites and has ignored minorities. Research suggests, however, that achievement and motivation patterns may differ considerably for blacks and whites and that sex differences found in white samples may occur in the reverse direction for blacks (see review by Hyde & Rosenberg, 1976). For example, there appears

to be a race by sex interaction in motive to avoid success, with white women and black men showing more fear of success than white men and black women (cf. Puryear & Mednick, 1974).

Also, attribution research has primarily been carried out in laboratory settings. In only two instances (Simon & Feather, 1973; Deaux, 1974) have naturally occurring achievement situations been used as experimental manipulations. While laboratory designs allow rigorous control over experimental variables, they tend also to lose meaningfulness for the subject. Thus, it becomes important that relationships observed in the laboratory be replicated in "field" research to determine the strength and generality of the phenomena.

This study explores attributional patterns of white men and women and compares these patterns to those of black men and women, in a "natural" setting. It was hypothesized that for whites, women would use more external and less stable attributions than would men, while blacks would show a sex difference in the opposite direction. It was also hypothesized that white females would have lower expectancies of future performance than white men, with a reverse pattern for blacks. This is in line with considerable evidence that white females express lower confidence in their ability to perform than do males (cf. Crandall, 1969; Feather, 1969). Also black populations tend to overestimate their performance more than do whites (L'Abate et al., 1973).

Method

Subjects

The initial pool of subjects was 582 undergraduates from introductory psychology and political science courses at Wayne State University, Toledo University, and the University of Michigan. A large proportion, however, did not complete the research (31% of the whites and 59% of the blacks) and were therefore excluded from the analysis. Thus, usable data were obtained from 49 blacks (23 males, 26 females) and 323 whites (178 males, 145 females), a total of 64% of the original sample. Comparison of subjects who completed the research with those who did not showed no significant differences in socio-economic status (SES) or expected grades for both races.

Procedure

Course examinations given during class were the performance task. Following the completion of their first course exam, subjects were asked to estimate the number of points they would receive on the exam, as well as indicating their sex, race, and social class. When the students' graded exams were returned, students were asked to complete a second questionnaire which incorporated a statement of their exam performance and past grade point average (GPA).

Success and failure were determined by students' performance. Those scoring in the upper two-thirds of the class were categorized as a success, while those in the lower third were

categorized as a failure. Whether the results were consistent with expectations was based on subjects' response to the question "Did you get what you expected to get?" Responses above the midpoint on a scale ranging from 0 (not at all) to 6 (very much so) were classified as expected results, while those below the midpoint were classified as unexpected.

In assigning causality, subjects put crosses on four 7-point scales, labeled "ABILITY OR LACK OF ABILITY," "GOOD OR BAD LUCK," "EASY OR HARD TEST," and "PREPARATION OR LACK OF PREPARATION." Each scale was labeled "not a cause" (0) at one extreme and "very much a cause" (6) at the other.

Subjects were also asked to rate on a 7-point scale their satisfaction with their performance on the exam and to estimate the points they would receive on the next test in the course.

Results

Analysis of subject demographic variables revealed significant differences between blacks and whites on both SES and GPA. Consequently, a three-way multivariate analysis of covariance (sex X race X performance outcome) with six dependent variables was performed, using SES and GPA as covariates, in order to remove any effects due to SES or GPA.

The results (Table 1) indicate that subjects' causal attributions vary significantly on the factors of performance outcome and race, but gender differences were not significant.

This latter finding of no sex differences, in conjunction with analyses indicating that for both races, subjects' responses differed significantly depending on performance expectation, led to a reanalysis of the data using race, performance outcome, and performance expectation as design factors.

The results (Tables 2 and 3, Figures 2 and 3) indicate a complex interaction between race, performance outcome, and performance expectation. Only two dependent measures, causal attributions of ability and luck, were significantly affected by these variables. For both races, expected successes are attributed to internal causes. Whites continue to internalize failure when it is expected but blacks do not. When results are unexpected, failures are not accepted as due to lack of abilities by either race, but successes are seen as due to one's ability more for whites than for blacks. Similarly, dissimilar patterns of attributions of luck were found for blacks and whites.

There was a significant interaction between race and performance outcome, with blacks making higher predictions for future performance following a failure (80.24) than after a success (71.25), while white subjects did just the reverse (72.81 vs. 82.86).

A two-way MANCOV also indicated that, for both black and white subjects, females received higher grades than males but expected to receive lower grades (Table 4).

Discussion

A major finding of this study is that there were no gender differences in causal attributions following achievement behavior, reinforcing the "sex similarities" notion (Hyde & Rosenberg, 1976). The results thus replicate several studies that failed to find sex differences but disagree with several others that did find such differences. One possible explanation is that, with the recent increased emphasis on women's equality, attribution of causation for achievement is also changing. It is also possible that the substantial loss of subjects may have affected the results.

There were also no significant interactions between race and gender on any of the dependent variables. Thus the hypothesis that there would be reversed sex differences for black and white subjects did not receive support.

These data suggest that sex is not a good predictor of causal attributions in this achievement context and suggest that attribution theory may not be useful in accounting for achievement discrepancies between the sexes. Race and performance expectations, however, appear to be useful variables and merit further consideration.

Closer examination of the complex interaction between race, performance outcome, and performance expectation reveals that the whites followed the results obtained in other studies. On attributions to ability whites were more internal when their performance was consistent with their expectations than

when inconsistent, similar to Feather's results (1969, 1973). Blacks did not evidence the same pattern of results. While they internalized successes that were consistent with expectations, all other outcomes were not attributed to ability. This same pattern, with whites replicating results of previous studies and blacks not, was found with luck attributions. Whites were seen to attribute failure more than success to luck, an example of the self-serving, ego-enhancing pattern discussed by Miller and Ross (1975). Blacks showed this pattern only when results were unexpected and the reverse when results were expected.

Another interesting result was the puzzling way in which blacks predicted future achievement. While common sense would predict higher future grade expectations following a success than a failure, as found for the whites, it does not predict the reverse pattern of higher grade expectations following failure, shown by blacks. Examination of group means in Table 3 indicates that this counterintuitive pattern occurs only when results are unexpected and not when expected. It is uncertain why this differing pattern of prediction between the races occurs, although it may be that blacks apply the "Gambler's Ruin" philosophy. However, this manner of response to performance outcome supports previous data indicating blacks tend to have unrealistic aspirations based on past performance. This finding, together with the race differences discussed earlier, demonstrate the need for further research with minorities.

A secondary purpose of this study was to examine subjects' aspirations. The data showed gender but not race differences, replicating the tendency of females to have lower expectancies and to perform better than males. The data suggest that women, on contrast to men, are actually more realistic in their aspirations and are more accurate in their predictions. Thus the tendency for females to predict lower performance, previously interpreted as underestimation of abilities, may be interpreted as a tendency of males to overestimate their ability.

In summary, the results of this study in a naturalistic setting do not support the contention that women make detrimental causal attributions that result in achievement discrepancies between the sexes. Similarly, no evidence was found to support the hypothesis of reversed sex differences in black and white populations. The results do, however, point to the importance of race as a predictive variable and suggest the attribution theory must take account of different patterns of results found for blacks.

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Variability of Cause	Source of Cause: Internal	Source of Cause: External
Stable	Ability or Lack of Ability	Task Ease or Task Difficulty
Unstable	Effort or Lack of Effort	Good Luck or Bad Luck

Figure 1. A two-dimensional model for classifying attributions of success and failure.

Table 1.

Multivariate Analysis of Covariance Summary Table for Effects of Gender, Race, and Performance Outcome

Source	df	F
Sex	6,353	.75
Race	6,353	2.38*
Performance Outcome (S/F)	6,353	7.03**
Sex X Race	6,353	.95
Sex X S/F	6,353	.49
Race X S/F	6,353	3.12**
Sex X Race X S/F	6,353	.44

*Significant at .05 level
**Significant at .01 level

Table 2

Multivariate Analysis of Covariance Summary Table for Effects of Race, Performance Outcome, and Performance Expectation

Source	df	F
Race	6,353	3.46*
Performance Outcome (S/F)	6,353	3.30*
Performance Expectation (E/U)	6,353	4.12*
Race X S/F	6,353	2.78*
Race X E/U	6,353	.91
S/F X E/U	6,353	.06
Race X S/F X E/U	6,353	2.99*

*Significant at .01 level

Table 3.

Mean Ratings of Dependent Variables (Ability, Luck, Task, Effort, Satisfaction, and Future Expectation) According to Race, Performance Expectation, and Performance Outcome

	Black				White			
	Expected		Unexpected		Expected		Unexpected	
	S	F	S	F	S	F	S	F
Ability*	3.71	1.25	1.30	2.04	3.93	3.47	2.84	2.33
Luck*	2.21	1.00	.90	2.61	1.74	2.73	1.66	2.21
Task	3.85	4.50	3.20	4.10	3.92	3.95	4.14	4.42
Effort	3.71	2.75	2.30	2.61	4.31	4.39	3.33	3.42
Satisfaction	3.50	2.50	2.00	1.04	3.74	2.21	2.33	1.57
Future Expectation	78.21	77.50	61.50	80.76	84.63	75.06	81.43	72.06

*Significant at .01 level

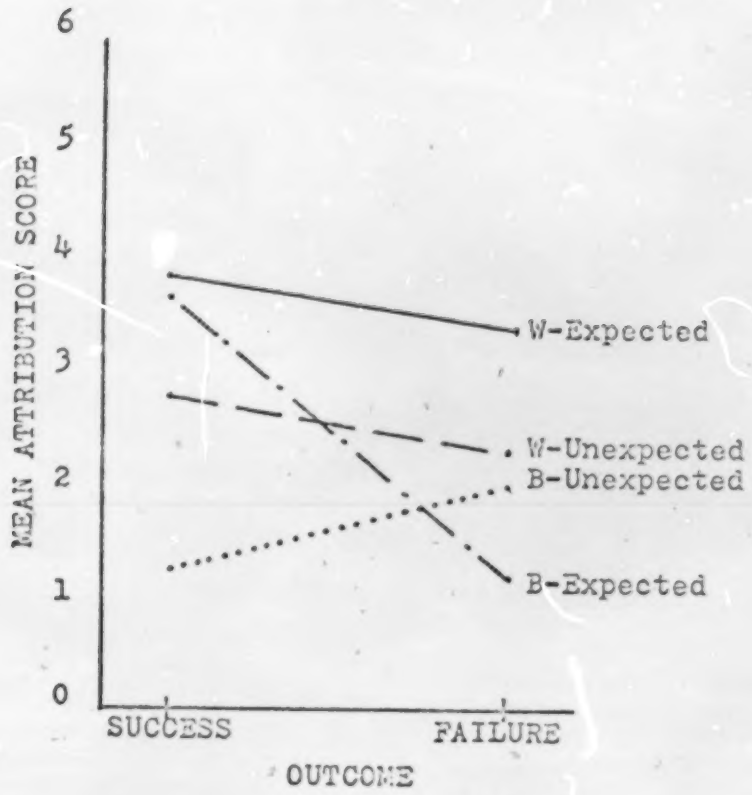

Figure 2. Mean attribution ratings for Ability as a function of performance outcome, performance expectation and race.

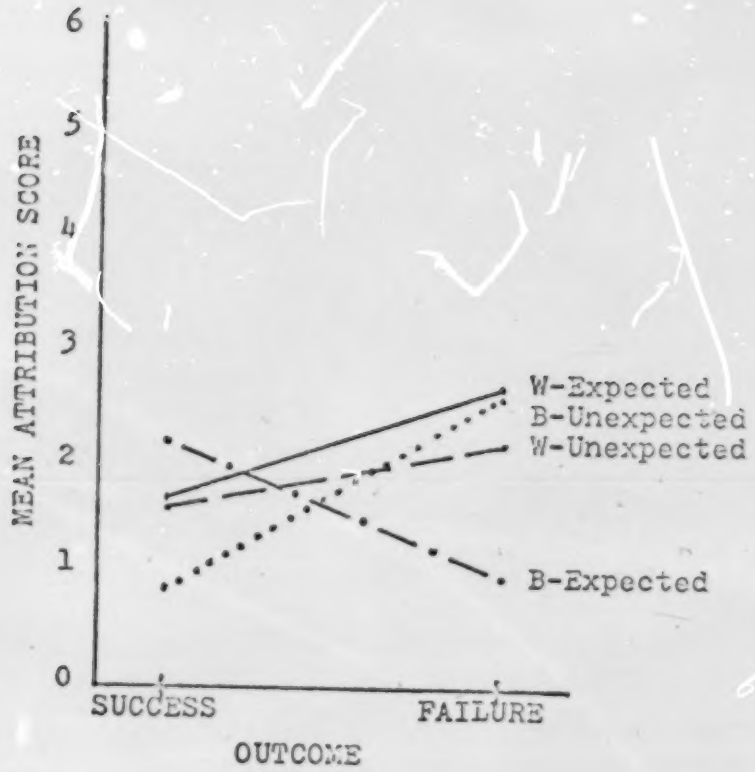

Figure 3. Mean attribution ratings for Luck as a function of performance outcome, performance expectation and race.

Table 4.

Mean Values of Grade Aspirations and Outcome

	Male	Female
Expected	77.28	75.48
Received	65.22	68.06
Difference*	12.06	7.42

*Significant at .05 level